

SCIENTIFIC NOTES

***Sirex juvencus californicus* in smog-killed trees in southern California (Hymenoptera: Siricidae).**¹—Near Lake Arrowhead, California, bolts were cut on 21 February 1967 from nine ponderosa pine (*Pinus ponderosa* Laws.) trees showing advanced decline caused by photochemical atmospheric pollution. These were subsequently placed in cold storage at about 5° C. Between 8 and 21 March some of these bolts were transferred to screen cages in a glasshouse which was not temperature controlled.

During the period 21 May to 13 June, a total of 33 male and 14 female *Sirex juvencus californicus* (Ashmead) (Hymenoptera: Siricidae) adults emerged from these bolts. A few adults, mostly males, had emerged prior to these daily observations. Males tended to emerge earlier and in greater numbers than females. However, since the sample size was so small and the bolts had been subjected to cold storage, these observations do not necessarily contradict an earlier observation (Cameron, 1967, Can. Entomol., 99: 18-24) that "males and females emerged in almost equal numbers throughout the emergence period." In general, the adults emerged from only one side of the bolt, and the emergence holes were not in an area with bluestain fungi (*Ceratocystis* spp.). It has been suggested (personal communication, Fields W. Cobb, Jr., Department of Plant Pathology, University of California, Berkeley) that perhaps the *Amylostereum* sp. associated with the siricids has an inhibitory effect on the development of bluestain.

One adult female *Ibalia ensiger* Norton (Hymenoptera: Ibalidae), an egg parasite of siricids, emerged from the bolts on 4 June.

While an association between atmospheric pollution injury and bark beetle infestations has been established (Stark *et al.*, 1968, Hilgardia, *in press*), this represents the first report of the development of a siricid and one of its parasites in smog-killed trees.—E. ALAN CAMERON, *University of California, Berkeley*.

¹ Supported in part by National Science Foundation Grant GB-5970, "Interrelationships Between Diseases and Bark Beetle (Scolytidae) Infestations in Coniferous Forests."

Positive separation of *Blattella vaga* and *Blattella germanica* (Orthoptera: Blattellidae).—*Blattella vaga* Hebard, the field cockroach and *Blattella germanica* (Linnaeus), the German cockroach are similar in appearance. Both have twin stripes on the pronotum and are the same size and shape.

If one has specimens of both species available, separation can be accomplished by color and/or facial maculation. *Blattella vaga* is smoky-gray with a rather broad, dark brown to black stripe on its face; *Blattella germanica* is brown and its face is variable in color, sometimes having a dark brown area roughly similar to the face of the field cockroach.

In late June of 1967 a heavy infestation of *Blattella vaga* was found in one-eighth acre of strawberries at Oroville, Butte County, California. As the field cockroach enlarges its range in northern California a positive identification takes on increasing importance since control considerations recommended for these species may vary. For further information see Twomey, N. R., April 1966, California Vector Views, 13 (4): 27-37.

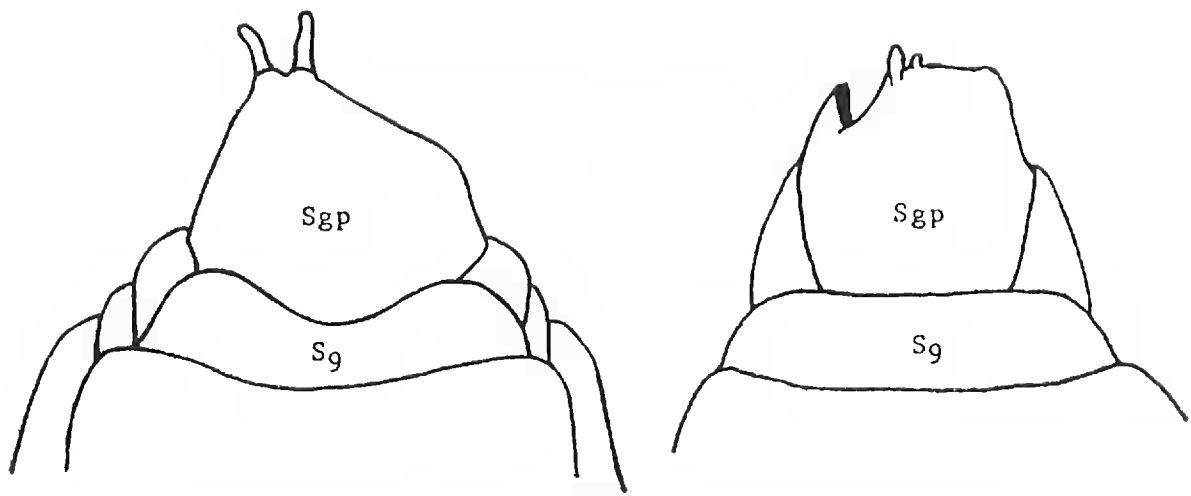


FIG. 1. Ventral view, male subgenital plate (Sgp); and 9th sternite (S₉). *Blattella vaga* Hcbard (left); and *Blattella germanica* (Linnaeus) (right).

Prompt and positive identification can be made by examination of the male subgenital plate in ventral view with a low power hand lens, see line drawing.—
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